Call for papers

Special issue of *Journal of Multivariate Analysis*

Statistical problems or methods in infinite-dimensional spaces

In an increasing number of applied sciences (environmetrics, chemometrics, biometrics, medicine, econometrics, etc.), the collected data are curves, surfaces or, more generally, mathematical objects. Indeed, progress in technologies and computing tools, in terms of both memory and computational capacities, makes it possible to deal with large sets of high-dimensional data. In particular, for a single phenomenon, one can observe a variable on a finer and finer grid in such a way that for one unit, one observes a continuous curve (spectrometric curve, temperature curve, time series, etc.), surface (image etc.) or any mathematical object belonging to an infinite-dimensional space. These are the so-called functional data. This kind of high-dimensional context is a very popular example when the statistician must take into account infinite-dimensional features in statistics and when classical statistical methods fail. In an infinite-dimensional setting, new theoretical problems arise and one must propose a pertinent mathematical background allowing the statistician to give a suitable solution. Thus, the aim of this special issue of *Journal of Multivariate Analysis* is to promote any advances in this area, namely, statistical modelling for functional variables, operator-based statistics and also mathematical/probabilistic tools for statistics in infinite-dimensional spaces. This special issue is strongly linked with the "1st International Workshop on Functional and Operatorial Statistics" (http://www.lsp.ups-tlse.fr/staph/IWFOS2008) organized by the STAPH group (http://www.lsp.upstlse.fr/staph), which will focus on the specific topics in this special issue.

Practical information

- All researchers (not only those coming to the meeting) can submit a paper.
- Submission: Papers for this special issue must be submitted online by using the Elsevier Editorial System for the *Journal of Multivariate Analysis* located at http://ees.elsevier.com/jmva. Future authors are invited to read carefully the "Author Information". Potential authors should respect the topics described above and also the standards for manuscripts submitted to JMVA. To ensure that all manuscripts are correctly identified for inclusion in the special issue, it is important that authors select "1st International Workshop on Functional and Operatorial Statistics" when they reach the "Article Type" step in the submission process.
- Reviewing procedure: The standard reviewing procedure will be used to select the best submissions. Special care will be taken to reach a high scientific level for this special issue.
- Deadline for submission is the end of May 2008.
- The guest editor is Frédéric Ferraty (ferraty@cict.fr).